

CLAIMS:

1. Sanding device for a vehicle, characterized by
 - a compressed-air connection (1) having a high pressure level,
 - a first pneumatic valve having (2) one input and two outputs,
 - a second pneumatic valve (3) having two inputs and one output,
 - a pressure container (4),
 - a sanding nozzle (5) arranged in a sand container,

the compressed-air connection (1) being connected with the input of the first pneumatic valve (2), one of the two outputs of the first pneumatic valve (2) being connected with the pressure container (4), the pressure container (4) being connected with one of the two inputs of the second pneumatic valve (3), the other output of the first pneumatic valve (2) being connected with the other input of the second pneumatic valve (3), and the output of the second pneumatic valve (3) being connected with the sanding nozzle (5).

2. Sanding device according to Claim 1, characterized in that, in an inoperative position, the input of the first pneumatic valve (2) is connected with that output which leads to the pressure container (4), the output that leads to the second pneumatic (3) being blocked, and in that, in an operative position of the first pneumatic valve (2), its input is connected with that output which leads to one of the two inputs of the second pneumatic valve (3), the output leading to the pressure container (4) being blocked.

3. Sanding device according to one of the preceding claims, characterized in that the second pneumatic valve (3) is constructed such that, in an inoperative position, its input connected with one of the outputs of the first pneumatic valve (2) is connected with the output, the input leading to the pressure container (4) being blocked, and in that, in an operative position of the second pneumatic valve (3), the input leading to the pressure container (4) is open and the output is connected with the sanding nozzle (5), the input leading to the first pneumatic valve (2) being blocked.

4. Sanding device according to one of the preceding claims, characterized in that the first pneumatic valve (2) and the second pneumatic valve (3) can each be activated by an electrically excitable coil against the pressure of a spring.

5. Sanding device according to one of the preceding claims, characterized in that a brake control device (6) is provided for electrically activating the first pneumatic valve (2) and the second pneumatic valve (3).

6. Sanding device according to one of the preceding claims, characterized in that the coil of the first pneumatic valve (2) can be manually supplied with electric power by demand by a driver by way of a sanding key button (8).

7. Sanding device according to Claim 5 and Claim 6, characterized in that a scanning line (9) is provided from the sanding key button (8) to the brake control device (6).

8. Brake system for a vehicle having a sanding device according to one of the preceding claims, wherein the compressed-air connection (1) is connected with a compressed-air pipe of the brake system.

9. Vehicle having a sanding device according to one of Claims 1 to 7, particularly a rail vehicle.

10. Method of automatically sanding a rail area (15) underneath a wheel (13) of a rail vehicle by means of sand from a sand container, characterized in that the sand container is acted upon directly by means of compressed air from a closed pressure container (4), and pulsed compressed-air from a compressed-air source is automatically supplied to the pressure container (4), the pressure container (4) smoothing the pressure surges which arise as a result of the pulsing of the compressed air.

11. Method according to Claim 10, characterized in that manual intervention by the driver has priority over the automatic sanding in that compressed air is then fed to the sand container directly from a compressed-air source (1).